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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CURTIS G. WONG, STEVEN M. DRUCKER,
and KENTARO TOYAMA

Appeal 2007-3487
Application 10/055,538
Technology Center 2100

Decided: March 31, 2008

Before HOWARD B. BLANKENSHIP, ALLEN R. MACDONALD, and
ST. JOHN COURTENAY III, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1, 4-10, 15-20, 30-40, 43-47, 52, and 53. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm, and enter a new ground of rejection in accordance with 37 C.F.R. § 41.50(b).

Background

Appellants claim a system and method for facilitating non-linear viewing of media that annotates selected scenes with metadata. (Abstract.) Claims 1 and 43 are illustrative.

1. A system that facilitates non-linear viewing of media, the system comprising:

a scene selector that scans a digitized media and selects a scene in the digitized media based on at least one of, face recognition, item recognition, voice recognition, color recognition, mood recognition, theme recognition, and an input from a user;

a metadata generator that produces metadata associated with the selected scene and annotates the selected scene with the metadata; and

an organizer that places the selected annotated scene in a media store to facilitate non-linear viewing of one or more scenes.

43. A data structure that facilitates non-linear viewing of media items, the data structure comprising:

a first field that holds a media item; and

a second field that holds a metadata item related to the media item, where the metadata facilitates locating a related media item by annotating the related media with metadata, and where the metadata facilitates at least one of [sic] identifying the media item.

The Examiner relies on the following references as evidence of unpatentability.

Morris

US 2002/0088000 A1

Jul. 4, 2002

Jain	US 6,567,980 B1	(filed Jan. 3, 2001) May 20, 2003 (filed Aug. 14, 1998)
Duncombe	US 6,813,745 B1	Nov. 2, 2004 (filed Apr. 28, 2000)

Claims 45-47 stand rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

Claims 45-47 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Morris.

Claims 1, 4-6, 8-10, 43, 44, 52, and 53 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Jain.

Claims 7, 15-20, and 30-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jain and Duncombe.

Claims 2 and 3 have been canceled.

Claims 11-14, 21-29, 41, 42, and 48-51 have been withdrawn from consideration as being directed to non-elected inventions.

Claims 45-47 -- § 101 rejection

Each of claims 45 through 47 is drawn to a “computer-readable medium having computer executable instructions for” According to Appellants, computer readable media are to be read as including “carrier waves.” (See Spec. 6: 22-24.)

We sustain the Examiner’s § 101 rejection because, under the broadest reasonable interpretation of the claims, the claims are directed to

non-statutory subject matter. A carrier wave or signal is not statutory subject matter because it does not fall within any of the four categories of statutory subject matter. *See In re Nuijten*, 500 F.3d 1346, 1357 (Fed. Cir. 2007).

Claims 45-47 -- § 102(e) rejection over Morris

Instant claim 45 recites a “data packet” comprising first, second, and third fields, each of the fields storing data. The data, however, does not functionally change the substrate in which the data is stored, even assuming for the purposes of the rejection over the prior art that the claimed “computer-readable medium” that bears the data packet is limited to statutory subject matter. The content of the fields thus constitute mere arrangements of data -- i.e., nonfunctional descriptive material.

The content of the nonfunctional descriptive material carries no weight in the analysis of patentability over the prior art. *Cf. In re Lowry*, 32 F.3d 1579, 1583 (Fed. Cir. 1994) (“Lowry does not claim merely the information content of a memory. . . .”). *See also Ex parte Nehls* (BPAI Jan. 28, 2008), *available at* <http://www.uspto.gov/web/offices/dcom/bpai/prec/fd071823.pdf>; *Ex parte Curry*, 84 USPQ2d 1272 (BPAI 2005) (nonprecedential) (Fed. Cir. Appeal No. 2006-1003, *aff’d* Rule 36 Jun. 12, 2006); *Manual of Patent Examining Procedure* (MPEP) § 2106.01 (8th ed., Rev. 6, Sept. 2007).

The Examiner applies *Morris* against claim 45. The Examiner finds that *Morris* describes a data packet having at least three fields (e.g., Fig. 2).

Appellants argue that claim 45 distinguishes over Morris, based on alleged differences between the identity of the data stored in the fields as opposed to that stored in the reference.

However, because the data in the context of claim 45 is nonfunctional descriptive material, the information content of the data cannot distinguish over the prior art. We sustain the § 102(e) rejection over Morris. Claims 46 and 47 fall with claim 45. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Claims 1, 4-6, 8-10, 43, 44, 52, and 53 -- § 102(e) rejection over Jain

Jain describes a system and method for video cataloging according to predefined or user definable metadata. The metadata is used to index and then retrieve encoded video. Jain Abstract.

As shown in the graphical user interface (GUI) (Jain Fig. 2), keyframes are extracted during a video capture process. A panel 184 displays user-defined clip annotations. Columns 190, 192, and 194 are user defined schema of labels to describe the clip. Col. 4, ll. 20-40.

Jain Figure 6 depicts a number of metadata types. The keyframe track 320 consists of a set of individual keyframes that have been “intelligently” extracted from the video based on visual information and scene changes by the Keyframe Extractor 512 (Fig. 9). Each keyframe may be time stamped for later correlation with the digital video. Jain col. 6, ll. 41-50. Other metadata tracks (Audio Classes, Speech, Speaker ID, and Keywords) are extracted by corresponding feature extractors (Fig. 9). *Id.*, ll. 55-59. The Clip Track 332 (Fig. 6) results from a user using the GUI to mark in- and

out-times, and type in associated alphanumeric data. Col. 6, l. 60 - col. 7, l. 13. In other words, during metadata capture, the user may mark video clips and annotate them. Col. 8, ll. 60-61.

Jain Figure 14 depicts the feature extraction process. Each feature extractor processes the digital media in step 852, to extract a keyframe, classify the audio signal, etc. In certain cases, some metadata will be generated from this process. Col. 12, ll. 30-54.

The user may save the metadata associated with the digital video in the form of HTML (Hypertext Mark-up Language) files (col. 12, l. 59 - col. 13, l. 11). The entire content could thus be packaged and e-mailed (col. 13, ll. 21-28).

The Examiner finds instant claim 1 to be anticipated by Jain. Appellants argue that Jain extracts metadata from the media, storing the metadata separately from the media. According to Appellants, Jain neither annotates digital media with metadata, nor stores annotated media “as recited in the subject claims.” (App. Br. 7.) Further, according to Appellants, it is “readily apparent” that media directly annotated with metadata (“annotated media”) is distinct from unannotated media that has an associated index of associated metadata. (*Id.* at 8.)

Appellants’ position is unclear in expressing what, exactly, is deemed to be missing from the Jain reference. In any event, claim 1 does not bring out any limitation that is not described by the reference. Claim 1 does not distinguish over storing a video clip comprising a selected scene in one

portion of memory and storing metadata, which annotates the selected scene, in another portion of memory.

Appellants rely on the same arguments in support of claims 43 and 44, but submit under that heading that Jain does not provide for “annotating” the related media with metadata, and merely “extracting” metadata that is associated with the media is “insufficient to read upon the claimed invention.” (App. Br. 8.)

Jain does refer to “extracting” metadata, but the “extraction” is within the instant claim 1 meaning of a metadata generator that “produces” metadata. For a prior art reference to anticipate in terms of 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference. However, this is not an “ipsissimis verbis” test. *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990). Moreover, as we have noted, Jain also refers to generating or producing metadata. Col. 12, ll. 30-54.

Further, as we noted, Jain expressly refers to a user annotating video clips during metadata capture. Col. 8, ll. 60-61. Although clip annotations may be “user-defined,” (col. 4, ll. 20-40), upon selection by the user the computing system produces metadata associated with the selected scene and annotates the scene with the metadata, consistent with claim 1. However, Jain’s metadata that is entirely machine-generated (e.g., col. 12, ll. 30-54) also serves to “annotate” a selected scene, for all that instant claim 1 requires.

We have considered all of Appellants’ arguments in the briefs but are not persuaded that the Examiner’s finding of anticipation is in error. We

sustain the rejection of claim 1. Claims 4-6, 8-10, 43, 44, 52, and 53 fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Claims 7, 15-20, and 30-40 -- § 103(a) rejection over Jain and Duncombe

Claim 7 falls with base claim 6, as Appellants do not provide separate arguments for patentability (App. Br. 10). *See* 37 C.F.R. § 41.37(c)(1)(vii).

Based on Appellants' remarks in support of the remainder of the claims rejected under § 103(a), we will decide the appeal for those claims on the basis of claim 15.

Duncombe describes a media system that includes an optical storage disk electronically storing at least one media file and a media organization file. Duncombe Abstract. An example of a practical application is provided in columns 8 and 9 of the reference.

A movie is segmented into a plurality of files, each file containing a segment of the movie. Duncombe col. 8, ll. 7-19. A "professional" edits and selects the media clips, and defines media selection parameters (e.g., topic and length of time), and corresponding media descriptions. *Id.*, ll. 20-29. A relational database allows the plurality of media clips to be organized relative to each other, and further allows media selection parameters to be associated with each of the plurality of media clips. *Id.*, ll. 30-47. The end user in Duncombe can select a plurality of media clips by inputting selections at a user interface (Fig. 6), whereby the system selects the plurality of suitable media clips for viewing based upon the media selection parameters. Col. 8, l. 59 - col. 9, l. 49.

Appellants submit that the proposed combination of Jain and Duncombe does not teach or suggest all of the claim limitations. According to Appellants, Duncombe selects media clips based on relationships between the media defined by a professional or users who have previously viewed the clip, rather than based on relationships between one or more pieces of annotating “metadata.” Appellants argue that, as a consequence, the combination would not evaluate relationships between “metadata,” but upon categorical ratings provided by a professional. (App. Br. 11-12.) In response to the rejection based on the playlist generator from Duncombe using metadata provided by Jain, Appellants contend that neither reference teaches a playlist generator that evaluates the one or more relationships between “metadata.” (App. Br. 12.)

On this record, it has not been shown that a media selection parameter described by Duncombe is not within the meaning of “annotating metadata” as recited in instant claim 15. The media selection parameters in Duncombe are analyzed to identify at least “one or more relationships” (e.g., “a relationship”) between the one or more media selection parameters in the database, consistent with the claim.

If we assume that the claimed subject matter requires the type of metadata as described by Jain, Appellants’ position does not speak to the combination of references. “Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.” *In re Merck & Co.*, 800 F.2d

1091, 1097 (Fed. Cir. 1986) (citing *In re Keller*, 642 F.2d 413, 425 (CCPA 1981)).

Moreover, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740 (2007). Although Appellants' position indicates a belief that producing a playlist based on annotating metadata was beyond the skill of the artisan, Appellants have provided no evidence tending to show that such was "uniquely challenging or difficult for one of ordinary skill in the art." See *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007) (citing *KSR*, 127 S. Ct. at 1740-41).

We are not persuaded of error in the rejection of claim 15. We thus sustain the § 103(a) rejection of claims 7, 15-20, and 30-40.

Claims 43, 52, and 53 -- New ground of rejection

We reject claims 43, 52, and 53 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Base claim 43 is drawn to "[a] data structure" comprising a first and a second field holding data.

In *In re Warmerdam*, 33 F.3d 1354 (Fed. Cir. 1994), the Court of Appeals for the Federal Circuit noted that a "data structure" is defined as a physical or logical relationship among data elements, designed to support specific data manipulation functions. The court distinguished a claim drawn

to a data structure *per se* from the physical arrangement of the contents of a memory. See *Warmerdam*, 33 F.3d at 1362.

The disembodied arrangement of information in the instant claims represents no more than an abstract idea, falling short of a practical application of the idea. As the Supreme Court has made clear, “[a]n idea of itself is not patentable.” *Warmerdam*, 33 F.3d at 1360 (quoting *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. (20 Wall.) 498, 507, 22 L.Ed. 410 (1874)).

“Data structures not claimed as embodied in computer-readable media are descriptive material *per se* and are not statutory because they are not capable of causing functional change in the computer.” MPEP § 2106.01, p. 2100-18 (citing *Warmerdam*, 33 F.3d at 1361).¹

CONCLUSION

The rejection of claims 45-47 under 35 U.S.C. § 101 as being directed to non-statutory subject matter is affirmed.

The rejection of claims 45-47 under 35 U.S.C. § 102(e) as being anticipated by Morris is affirmed.

The rejection of claims 1, 4-6, 8-10, 43, 44, 52, and 53 under 35 U.S.C. § 102(e) as being anticipated by Jain is affirmed.

The rejection of claims 7, 15-20, and 30-40 under 35 U.S.C. § 103(a) as being unpatentable over Jain and Duncombe is affirmed.

¹ Of course, the “computer-readable” medium in which a data structure is embodied must, at a minimum, fall within a statutory class. *Cf. Nuijten*, 500 F.3d at 1357.

In a new ground of rejection, we reject claims 43, 52, and 53 under 35 U.S.C. § 101 as being directed to non-statutory subject matter.

With respect to the affirmed rejection(s), 37 C.F.R. § 41.52(a)(1) provides that “Appellant may file a single request for rehearing within two months from the date of the original decision of the Board.”

In addition to affirming the Examiner’s rejection(s) of one or more claims, this decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should Appellants elect to prosecute further before the Examiner pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek

review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the Examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If Appellants elect prosecution before the Examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED -- 37 C.F.R. § 41.50(b)

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rwk

Himanshu S. Amin
Amin & Turocy, LLP
National City Center, 24th Floor
1900 East Ninth Street
Cleveland OH 44114